## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

1. (Currently Amended) A compound of formula I

$$R_2$$
 $(CR_3R_4)n$ 
 $N$ 
 $N$ 

(IVa)

wherein

Q is SO<sub>2</sub>, CO, CONR<sub>24</sub>, CSNR<sub>25</sub> or CH<sub>2</sub>;

W is N or CR6;

X is N or CR,;

Y is NR<sub>8</sub> or CR<sub>9</sub>R<sub>10</sub>;

n is [[0 or]] an integer of 1 or 2;

- Z is  $NR_{11}$  or  $CR_{12}R_{13}$  with the proviso that when n is 1, Q is  $SO_2$ , CO or  $CH_2$  and W is  $CR_6$  then Z must be  $CR_{12}R_{13}$  and with the further provisos that when Y is  $NR_8$  then Z must be  $CR_{12}R_{13}$  and at least one of Y and Z must be  $NR_8$  or  $NR_{11}$ ;
- $R_1$ ,  $R_2$  and  $R_7$  are each independently H, halogen, CN,  $OCO_2R_{14}$ ,  $CO_2R_{15}$ ,  $CONR_{29}R_{30}$ ,  $CNR_{16}NR_{17}R_{18}$ ,  $SO_mR_{19}$ ,  $NR_{20}R_{21}$ ,  $OR_{22}$ ,  $COR_{23}$  or a  $C_1$ - $C_6$ alkyl,  $C_2$ - $C_6$ alkenyl,  $C_2$ - $C_6$ alkynyl,  $C_3$ - $C_6$ cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;
- $R_3$ ,  $R_4$ ,  $R_9$ ,  $R_{10}$ ,  $R_{12}$  and  $R_{13}$  are each independently H or an optionally substituted  $C_1-C_6$ alkyl group;
- $R_s$  is an optionally substituted  $C_1-C_6$ alkyl, aryl or heteroaryl group;

m is 0 or an integer of 1 or 2;

 $R_{\rm 6}$  is H, halogen, or an optionally substituted  $C_1-C_{\rm 6}alkyl$  ,  $C_1-C_{\rm 6}alkoxy, \ aryl \ or \ heteroaryl \ group;$ 

- $R_8$  and  $R_{11}$  are each independently H,  $CNR_{26}NR_{27}R_{28}$  or a  $C_1$   $C_6$ alkyl,  $C_3$ - $C_6$ cycloalkyl, cycloheteralkyl, aryl or heteroaryl group each optionally substituted;
- $R_{14}$ ,  $R_{15}$ ,  $R_{22}$  and  $R_{23}$  are each independently H or an optionally substituted  $C_1-C_6$ alkyl,  $C_2-C_6$ alkenyl,  $C_2-C_6$ alkynyl,  $C_3-C_6$ cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group;
- $R_{16},~R_{17},~R_{18},~R_{20},~R_{21},~R_{26},~R_{27},~R_{28},~R_{29}~and~R_{30}~are~each independently~H~or~C_1-C_4alkyl;$
- $R_{19}$  is an optionally substituted  $C_1-C_6$ alkyl, aryl or heteroaryl group;
- $R_{24}$  and  $R_{25}$  are each independently H or an optionally substituted  $C_1$ - $C_6$ alkyl, aryl or heteroaryl group; and  $\frac{}{}$ ---- represents a single bond or a double bond; or the stereoisomers thereof or the pharmaceutically acceptable salts thereof.
- 2. (Original) The compound according to claim 1 wherein Y is  $NR_{\alpha}$ .
- 3. (Currently Amended) The compound according to claim 1 wherein n is [[0 or]] 2.
- 4. (Original) The compound according to claim 1 wherein W is N.
- 5. (Original) The compound according to claim 2 wherein n is 1.
- 6. (Original) The compound according to claim 4 wherein Z is  $NR_{11}$ .
- 7. (Original) The compound according to claim 5 wherein Q is  $SO_2$  and  $R_5$  is an optionally substituted aryl or heteroaryl group.
- 8. (Original) The compound according to claim 7 wherein X is CH and \_\_\_\_ represents a single bond.

(Currently Amended) The compound according to claim 1 9. selected from the group consisting of: 1-(phenylsulfonyl)-3-(piperidin-4-yl)-1H-indazole; 1-(4-nitrophenyl)-3-(piperidin-4-yl)-1H-indazole; 1-(4-fluorophenyl)-3-(piperidin-4-yl)-1H-indazole; 1-(3,4-dimethoxyphenyl-3-(piperidin-4-yl)-1H-indazole; 1 (4 fluorophenylsulfonyl) 3 (1 methyl pyrrolidin 3 yl) 1H indole; 1 (4 chlorophenylsulfonyl) 3 (1 methylpyrrolidin 3 yl) 1H indole: 1 (naphth 2 ylsulfonyl) 3 (1 methylpyrrolidin 3 yl) 1H indole; 1 (4 aminophenylsulfonyl) 3 (1 methylpyrrolidin 3 yl) 1H indole; 1 (3,4 dimethoxyphenylsulfonyl) 3 (1 methylpyrrolidin 3 yl) 1H indole; 1 (3,4 dichlorophenylsulfonyl) 3 (1 methylpyrrolidin 3 yl) 1H indole; 1-[(4,5 dichlorothicn 2 yl)sulfonyl] 3 (1 methyl pyrrolidin 3 y1) 1H indole; 1 (2 bromophenylsulfonyl) 3 (1-methylpyrrolidin 3 yl) 1H indole: 1 (4-iodophenylsulfonyl) 3 (1 methylpyrrolidin-3 yl) 1Hindole; 1 (2 iodophenylsulfonyl) 3 (1 methylpyrrolidin 3 yl) 1H indole; 1 (4 aminophenylsulfonyl) 3 (1 benzylpyrrolidin 3 yl)-1H indole; 3 (1 benzylpyrrolidin 3 yl) 1 (4 methylphenylsulfonyl) 1H indole; 3 (1 benzylpyrrolidin 3 yl) 1 (3,4 dichlorophenyl sulfonyl) 1H indole; 3 (1 benzylpyrrolidin 3 yl) 1 (2 bromophenylsulfonyl) 1Hindole; 5 [3 (1 benzylpyrrolidin 3 yl) indole 1 sulfonyl] 4 methyl thiazol 2 ylamine; 3 (1 benzylpyrrolidin 3 yl) 1 [(5 bromothien 2 yl)sulfonyl] 1H indole; 1 phenylsulfonyl 3 (1 methylpyrrolidin 3 yl) 1H pyrrolo[2,3 <del>b]pyridine;</del>

- 1 phenylsulfonyl 3 (1 methylpyrrolidin 3 yl) 1H indazole;
- 1 phenylsulfonyl 3 (1 methyl 2,5 dihydro 1H pyrrol 3 yl) 1H pyrrolo[2,3 b]pyridine;
- 1 phenylsulfonyl 3 (1 methyl 2,5 dihydro 1H pyrrol 3 yl) 1Hindole;
- 1-phenylsulfonyl-3-(1-methylpiperidin-4-yl)-1H-indazole;
- 1-phenylsulfonyl-3-(1-methyl-1,2,3,6-tetrahydropyridin-4-yl)-1H-indazole;
- 1-phenylsulfonyl-3-(1-methylazepan-4-yl)-1H-pyrrolo[2,3-b]pyridine;
- 1-phenylsulfonyl-3-(1-methylazepan-4-yl)-1H-indole;
- 1-phenylsulfonyl-5-fluoro-3-(1-methylazepan-4-yl)-1H-indole;
- 1-phenylsulfonyl-3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-1H-indole;
- 1-phenylsulfonyl-3-(1-methyl-2,5,6,7-tetrahydro-1H-azepin-4-yl)-1H-indole;
- 1-phenylsulfonyl-3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-1H-pyrrolo[2,3-b]pyridine;
- 1-phenylsulfonyl-5-fluoro-3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-1H-indole;
- 1-phenylsulfonyl-5-fluoro-3-(1-methyl-2,5,6,7-tetrahydro-1H-azepin-4-yl)-1H-indole;
- 1 (benzo[b]thioen 4 ylsulfonyl) 3 (1 methyl pyrrolidin 3 yl) 1H pyrrolo[2,3 b]pyridine;
- 1 (3 fluorophenylsulfonyl) 3 (1 methylpyrrolidin 3 yl) 1Hindazole;
- 1-(2,5-dichlorophenylsulfonyl) 3 (2,5-dihydro-1H pyrrol-3 yl)

  1H pyrrolo[2,3-b]pyridine;
- 8 [3 (1 methyl 2,5 dihydro 1H pyrrol 3 yl)indole 1 sulfonyl]quinoline;
- 1-phenylsulfonyl-5-chloro-3-(1-methylpiperidin-4-yl)-1H-indazole;
- 5-methoxy-3-(1-methyl-1,2,3,6-tetrahydropyridin-4-yl)-1-(naphth-1-yl-sulfonyl)-1H-indazole;
- 3-(1-methylazepan-4-yl)-1-(naphth-1-yl-sulfonyl)-1H-pyrrolo[2,3-b]pyridine;
- 3-(1-methylazepan-4-yl)-1-(naphth-1-yl-sulfonyl)-1H-indole;
- 1-(benzo[b]thien-4-ylsulfonyl)-5-fluoro-3-(1-methylazepan-4yl)-1H-indole;

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8-[3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-indole-1-
sulfonyl]-quinoline;
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- 3-(1-methyl-2,5,6,7-tetrahydro-1H-azepin-4-yl)-1-(naphth-1-ylsulfonyl)-1H-indole;
- 8-[3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-pyrrolo[2,3-b]pyridine-1-sulfonyl]-quinoline;
- 8-[5-fluoro-3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)indole-1-sulfonyl]-quinoline;
- 5-fluoro-3-(1-methyl-2,5,6,7-tetrahydro-1H-azepin-4-yl)-1-(naphth-1-ylsulfonyl)-1H-indole;
- 1 (benzo[b]thien 4 ylsulfonyl) 3 (1 benzyl pyrrolidin 3 yl)

  1H pyrrolo[2,3 b]pyridine;
- 1 (3 fluoro phenylsulfonyl) 3 (1 phenethyl pyrrolidin 3 yl)

  1H indazole;
- 1 (2,5 dichlorophenylsulfonyl) 3 (1 ethyl 2,5 dihydro 1H pyrrolo[2,3 b]pyridine;
- 3 (1 methyl 2,5 dihydro 1H pyrrol 3 yl) 1 (naphth 2 ylsulfonyl) 1H indole;
- 5-chloro-1-(3-fluorophenylsulfonyl)-3-piperidin-4-yl-1H-indazole;
- 5-methoxy-1-(naphth-1-ylsulfonyl)-3-(1,2,2-trimethyl-1,2,3,6-tetrahydro-pyridin-4-yl)-1H-indazole;
- 1-(naphth-1-ylsulfonyl)-3-(1-phenethyl-azepan-4-yl)-1H-pyrrolo[2,3-b]pyridine;
- 3-azepan-4-yl-1-(naphth-1-ylsulfonyl)-1H-indole;
- 3-azepan-4-yl-1-(3-chloro-5-methyl-benzo[b]thien-2ylsulfonyl)-5-fluoro-1H-indole;
- 8-[3-(1-phenethyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-indole-1-sulfonyl]-quinoline;
- 3-[1-(3,3-dimethylbutyl)-2,5,6,7-tetrahydro-1H-azepin-4-yl]-1-(naphth-2-ylsulfonyl)-1H-indole;
- 1-(2,3-dichlorophenylsulfonyl)-3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-1H-pyrrolo[2,3-]pyridine;
- 1-[(3-chloro-5-methoxyphenylsulfonyl)]-3-(2,2-dimethyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-5-fluoro-1H-indole;
- 3-azepan-4-yl-5-fluoro-1-(naphth-2-ylsulfonyl)-1H-indole;
- 1-Benzenesulfonyl-3-piperidin-3-yl-1H-indole;
- 1-(4-isopropyl-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;
- 1-(5-chloro-thiophene-2-sulfonyl)-3-piperidin-3-yl-1H-indole;
- 1-(3-chloro-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;

- 1-(3,4-difluoro-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;
- 1-(4-trifluoromethoxy-benzenesulfonyl)-3-piperidin-3-yl-1Hindole;
- 1-(4-methoxy-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;
- 1-(4-trifluoromethy-benzenesulfonyl)-3-piperidin-3-yl-1Hindole;
- 1-(3-chloro-4-methyl-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;
- 1-(2-chloro-4-trifluoromethyl-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;
- 1-(2-naphthylenesulfonyl)-3-piperidin-3-yl-1H-indole;
- 1-(5-chloro-3-methyl-benzo[b]thiophene-2-sulfonyl)-3piperidin-3-yl-1H-indole;
- 1-(2,6-dichloro-imidazo[2,1-b]thiazole-5-sulfonyl)-3-piperidin-3-yl-1H-indole;
- 2-chloro-3-(3-piperidin-3-yl-indole-1-sulfonyl)-imidazo[1,2-a]pyridine;
- 2-chloro-3-(3-piperidin-3-yl-indole-1-sulfonyl)benzo[d]imidazo[2,1-b]thiazole;
- 1-(4-isopropyl-benzenesulfonyl)-3-piperidin-3-yl-1Hpyrrolo[2,3-b]pyridine;
- 1-(5-chloro-thiophene-2-sulfonyl)-3-piperidin-3-yl-1Hpyrrolo[2,3-b]pyridine;
- 1-(3-chloro-benzenesulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;
- 1-(3,4-difluoro -benzenesulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;
- 1-(4-trifluoromethoxy-benzenesulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;
- 1-(3-chloro-4-methyl-benzenesulfonyl)-3-piperidin-3-yl-1Hpyrrolo[2,3-b]pyridine;
- 1-(2-chloro-4-trifluoromethyl-benzenesulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;
- 1-(2-naphthylenesulfonyl)-3- piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;
- 1-(5-chloro-3-methyl-benzo[b]thiophene-2-sulfonyl)-3piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;
- 2-chloro-3-(3-piperidin-3-yl-pyrrolo[2,3-b]pyridine-1-sulfonyl)-imidazo[1,2-a]pyridine;

2-chloro-3-(3-piperidin-3-yl-pyrrolo[2,3-b]pyridine-1-sulfonyl)-benzo[d]imidazo[2,1-b]thiazole; and the pharmaceutically acceptable salts thereof.

10. (Currently Amended) A method for the treatment of a disorder of the central nervous system related to or affected by the 5-HT6 receptor in a patient in need thereof which comprises providing said patient with a therapeutically effective amount of a compound of formula I

$$R_2$$
 $(CR_3R_4)n$ 
 $(CR_3R_5)$ 
 $(CR_3R_4)n$ 
 $(CR_3R_4)n$ 

wherein

Q is SO,, CO, CONR<sub>24</sub>, CSNR<sub>25</sub> or CH<sub>2</sub>;

W is N or CR,;

X is N or CR,;

Y is NR, or CR,R10;

n is [[0 or]] an integer of 1 or 2;

- Z is  $NR_{11}$  or  $CR_{12}R_{13}$  with the proviso that when n is 1, Q is  $SO_2$ , CO or  $CH_2$  and W is  $CR_6$  then Z must be  $CR_{12}R_{13}$  and with the further provisos that when Y is  $NR_8$  then Z must be  $CR_{12}R_{13}$  and at least one of Y and Z must be  $NR_8$  or  $NR_{11}$ ;
- $R_1$ ,  $R_2$  and  $R_7$  are each independently H, halogen, CN,  $OCO_2R_{14}$ ,  $CO_2R_{15}$ ,  $CONR_{29}R_{30}$ ,  $CNR_{16}NR_{17}R_{18}$ ,  $SO_mR_{19}$ ,  $NR_{20}R_{21}$ ,  $OR_{22}$ ,  $COR_{23}$  or a  $C_1$ - $C_6$ alkyl,  $C_2$ - $C_6$ alkenyl,  $C_2$ - $C_6$ alkynyl,  $C_3$ - $C_6$ cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;
- $R_3$ ,  $R_4$ ,  $R_9$ ,  $R_{10}$ ,  $R_{12}$  and  $R_{13}$  are each independently H or an optionally substituted  $C_1-C_6$ alkyl group;
- $R_s$  is an optionally substituted  $C_1-C_6$ alkyl, aryl or heteroaryl group;

m is 0 or an integer of 1 or 2;

acceptable salts thereof.

- $R_6$  is H, halogen, or an optionally substituted  $C_1-C_6$ alkyl,  $C_1-C_6$ alkoxy, aryl or heteroaryl group;
- $R_8$  and  $R_{11}$  are each independently H,  $CNR_{26}NR_{27}R_{28}$  or a  $C_1$   $C_6$ alkyl,  $C_3$ - $C_6$ cycloalkyl, cycloheteralkyl, aryl or heteroaryl group each optionally substituted;
- $R_{14}$ ,  $R_{15}$ ,  $R_{22}$  and  $R_{23}$  are each independently H or an optionally substituted  $C_1-C_6$ alkyl,  $C_2-C_6$ alkenyl,  $C_2-C_6$ alkynyl,  $C_3-C_6$ cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group;
- $\rm R_{16},~R_{17},~R_{18},~R_{20},~R_{21},~R_{26},~R_{27},~R_{28},~R_{29}~and~R_{30}~are~each$  independently H or  $\rm C_1-C_4 alkyl;$
- $R_{19}$  is an optionally substituted  $C_1-C_6$ alkyl, aryl or heteroaryl group;
- $R_{24}$  and  $R_{25}$  are each independently H or an optionally substituted  $C_1$ - $C_6$ alkyl, aryl or heteroaryl group; and  $\underline{---}$  represents a single bond or a double bond; or the stereoisomers thereof or the pharmaceutically
- 11. (Original) The method according to claim 10 wherein said disorder is a mood disorder, a motor disorder, or a cognitive disorder.
- 12. (Original) The method according to claim 10 wherein said disorder is schizophrenia.
- 13. (Original) The method according to claim 11 wherein said disorder is anxiety or depression.
- 14. (Original) The method according to claim 11 wherein said disorder is memory loss or attention deficit disorder.
- 15. (Currently Amended) A pharmaceutical composition which comprises a pharmaceutically acceptable carrier and an effective amount of a compound of formula I

$$R_2$$
 $(CR_3R_4)$ 
 $R_1$ 
 $Q$ - $R_5$ 
 $(I)$ 

wherein

Q is SO,, CO, CONR,, CSNR, or CH,;

W is N or CR;

X is N or CR,;

Y is NR, or CR,R,,;

n is [[0 or]] an integer of 1 or 2;

Z is  $NR_{11}$  or  $CR_{12}R_{13}$  with the proviso that when n is 1, Q is SO,, CO or CH,, and W is  $CR_6$  then Z must be  $CR_{12}R_{13}$  and with the further provisos that when Y is NR, then Z must be CR, R, and at least one of Y and Z must be NR, or NR<sub>11</sub>;

R,, R, and R, are each independently H, halogen, CN,  $OCO_2R_{14}$ ,  $CO_2R_{15}$ ,  $CONR_{29}R_{30}$ ,  $CNR_{16}NR_{17}R_{18}$ ,  $SO_mR_{19}$ ,  $NR_{20}R_{21}$ ,  $OR_{22}$ ,  $COR_{23}$  or a  $C_1-C_6$  alkyl,  $C_2-C_6$  alkenyl,  $C_2-C_6$  alkynyl,  $C_3-C_6$ C<sub>s</sub>cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

 $\rm R_{_{3}},\ R_{_{4}},\ R_{_{9}},\ R_{_{10}},\ R_{_{12}}$  and  $\rm R_{_{13}}$  are each independently H or an optionally substituted C,-C,alkyl group;

R, is an optionally substituted C,-C,alkyl, aryl or heteroaryl group;

m is 0 or an integer of 1 or 2;

R, is H, halogen, or an optionally substituted C<sub>1</sub>-C<sub>6</sub>alkyl, C,-C,alkoxy, aryl or heteroaryl group;

 $R_s$  and  $R_{11}$  are each independently H,  $CNR_{25}NR_{27}R_{28}$  or a  $C_1$ -C,alkyl, C,-C,cycloalkyl, cycloheteralkyl, aryl or heteroaryl group each optionally substituted;

 $R_{14}$ ,  $R_{15}$ ,  $R_{22}$  and  $R_{23}$  are each independently H or an optionally substituted C,-C,alkyl, C2-C,alkenyl, C2-Calkynyl, C,-C,cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group;

 $R_{16}$ ,  $R_{17}$ ,  $R_{18}$ ,  $R_{20}$ ,  $R_{21}$ ,  $R_{26}$ ,  $R_{27}$ ,  $R_{28}$ ,  $R_{29}$  and  $R_{30}$  are each independently H or  $C_1-C_4$ alkyl;

- $R_{19}$  is an optionally substituted  $C_1-C_6$ alkyl, aryl or heteroaryl group;
- $R_{24}$  and  $R_{25}$  are each independently H or an optionally substituted  $C_1$ - $C_6$ alkyl, aryl or heteroaryl group; and  $\underline{---}$  represents a single bond or a double bond; or the stereoisomers thereof or the pharmaceutically acceptable salts thereof.
- 16. (Original) The composition according to claim 15 having a formula I compound wherein n is 1; Q is  $SO_2$ ; Y is  $NR_8$ ; and X is  $CR_2$ .
- 17. (Currently Amended) The composition according to claim 15 having a formula I compound wherein [[n is 0;]] Q is  $SO_2;$  X is  $CR_7;$  and Z is  $NR_{11}$ .
- 18. (Original) The composition according to claim 16 having a formula I compound wherein  $R_s$  is an optionally substituted aryl group and --- represents a single bond.
- 19. (Currently Amended) The composition according to claim 15 having a formula I compound selected from the group consisting of:
- 1-(phenylsulfonyl)-3-(piperidin-4-yl)-1H-indazole;
- 1-(4-nitrophenyl)-3-(piperidin-4-yl)-1H-indazole;
- 1-(4-fluorophenyl)-3-(piperidin-4-yl)-1H-indazole;
- 1-(3,4-dimethoxyphenyl-3-(piperidin-4-yl)-1H-indazole;
- 1 (4 fluorophenylsulfonyl) 3 (1 methyl-pyrrolidin 3 yl) 1H indole:
- 1 (4 chlorophenylsulfonyl) 3 (1 methylpyrrolidin 3 yl) 1H indole:
- 1 (naphth 2 ylsulfonyl) 3 (1 methylpyrrolidin 3 yl) 1H indole;
- 1 (4-aminophenylsulfonyl) 3 (1 methylpyrrolidin 3 yl) 1H
  indole;
- 1 (3,4 dimethoxyphenylsulfonyl) 3 (1 methylpyrrolidin 3 yl) 1H indole;
- 1 (3,4 dichlorophenylsulfonyl) 3 (1 methylpyrrolidin 3 yl) 1H indole;

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1 [(4,5 dichlorothien 2 yl)sulfonyl] 3 (1 methyl pyrrolidin 3-
     yl) 1H indole;
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- 1 (2-bromophenylsulfonyl) 3 (1 methylpyrrolidin 3 yl) 1Hindole:
- 1 (4-iodophenylsulfonyl) 3 (1 methylpyrrolidin 3 yl) 1Hindole:
- 1 (2 iodophenylsulfonyl) 3 (1 methylpyrrolidin 3 yl) 1H indole;
- 1 (4 aminophenylsulfonyl) -3 (1 benzylpyrrolidin 3 yl) 1H indole;
- 3 (1 benzylpyrrolidin 3 yl) 1 (4 methylphenylsulfonyl) 1H indole;
- 3 (1-benzylpyrrolidin 3 yl) 1 (3,4 dichlorophenyl-sulfonyl)-1H indole;
- 3 (1-benzylpyrrolidin 3 yl) 1 (2-bromophenylsulfonyl) 1H indole;
- 5 [3 (1 benzylpyrrolidin 3 yl) indole 1 sulfonyl] 4 methyl thiazol 2 ylamine;
- 3 (1 benzylpyrrolidin 3 yl) 1 [(5 bromothien 2 yl)sulfonyl] 1H indole;
- 1 phenylsulfonyl 3 (1 methylpyrrolidin 3 yl) 1H pyrrolo[2,3 b]pyridine;
- 1 phenylsulfonyl 3 (1 methylpyrrolidin 3 yl) 1H indazole;
- 1 phenylsulfonyl 3 (1 methyl 2,5 dihydro 1H pyrrol 3 yl) 1H pyrrolo[2,3 b]pyridine;
- 1 phenylsulfonyl 3 (1 methyl 2,5 dihydro 1H pyrrol 3 yl) 1H indole;
- 1-phenylsulfonyl-3-(1-methylpiperidin-4-yl)-1H-indazole;
- 1-phenylsulfonyl-3-(1-methyl-1,2,3,6-tetrahydropyridin-4-yl)-1H-indazole;
- 1-phenylsulfonyl-3-(1-methylazepan-4-yl)-1H-pyrrolo[2,3b]pyridine;
- 1-phenylsulfonyl-3-(1-methylazepan-4-yl)-1H-indole;
- 1-phenylsulfonyl-5-fluoro-3-(1-methylazepan-4-yl)-1H-indole;
- 1-phenylsulfonyl-3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4y1)-1H-indole;
- 1-phenylsulfonyl-3-(1-methyl-2,5,6,7-tetrahydro-1H-azepin-4yl)-1H-indole;
- 1-phenylsulfonyl-3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4yl)-1H-pyrrolo[2,3-b]pyridine;

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1-phenylsulfonyl-5-fluoro-3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-1H-indole;
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- 1-phenylsulfonyl-5-fluoro-3-(1-methyl-2,5,6,7-tetrahydro-1H-azepin-4-yl)-1H-indole;
- 1 (benzo[b]thioen 4 ylsulfonyl) 3 (1 methyl pyrrolidin 3 yl) 1H pyrrolo[2,3 b]pyridine;
- 1 (3 fluorophenylsulfonyl) 3 (1 methylpyrrolidin 3 yl) 1Hindazole;
- 1 (2,5 dichlorophenylsulfonyl) 3 (2,5 dihydro 1H pyrrol 3 yl)

  1H pyrrolo[2,3 b]pyridine;
- 8 [3 (1-methyl 2,5 dihydro 1H pyrrol 3 yl)indole 1 sulfonyl] quinoline;
- 1-phenylsulfonyl-5-chloro-3-(1-methylpiperidin-4-yl)-1H-indazole;
- 5-methoxy-3-(1-methyl-1,2,3,6-tetrahydropyridin-4-yl)-1-(naphth-1-yl-sulfonyl)-1H-indazole;
- 3-(1-methylazepan-4-yl)-1-(naphth-1-yl-sulfonyl)-1H-pyrrolo[2,3-b]pyridine;
- 3-(1-methylazepan-4-yl)-1-(naphth-1-yl-sulfonyl)-1H-indole;
- 1-(benzo[b]thien-4-ylsulfonyl)-5-fluoro-3-(1-methylazepan-4yl)-1H-indole;
- 8-[3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-indole-1-sulfonyl]-quinoline;
- 3-(1-methyl-2,5,6,7-tetrahydro-1H-azepin-4-yl)-1-(naphth-1-ylsulfonyl)-1H-indole;
- 8-[3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-pyrrolo[2,3-b]pyridine-1-sulfonyl]-quinoline;
- 8-[5-fluoro-3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)indole-1-sulfonyl]-quinoline;
- 5-fluoro-3-(1-methyl-2,5,6,7-tetrahydro-1H-azepin-4-yl)-1-(naphth-1-ylsulfonyl)-1H-indole;
- 1 (benzo[b]thien 4 ylsulfonyl) 3 (1 benzyl pyrrolidin 3 yl)

  1H pyrrolo[2,3 b]pyridine;
- 1 (3 fluoro phenylsulfonyl) 3 (1 phenethyl pyrrolidin 3 yl)

  1H indazole;
- 1 (2,5 dichlorophenylsulfonyl) 3 (1 ethyl 2,5 dihydro 1H-pyrrolo[2,3 b]pyridine;
- 3 (1 methyl 2,5 dihydro 1H pyrrol 3 yl) 1 (naphth 2 ylsulfonyl) 1H indole;

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5-chloro-1-(3-fluorophenylsulfonyl)-3-piperidin-4-yl-1H-
     indazole:
5-methoxy-1-(naphth-1-ylsulfonyl)-3-(1,2,2-trimethyl-1,2,3,6-
     tetrahydro-pyridin-4-yl)-1H-indazole;
1-(naphth-1-ylsulfonyl)-3-(1-phenethyl-azepan-4-yl)-1H-
     pyrrolo[2,3-b]pyridine;
3-azepan-4-yl-1-(naphth-1-ylsulfonyl)-1H-indole;
3-azepan-4-yl-1-(3-chloro-5-methyl-benzo[b]thien-2-
     ylsulfonyl)-5-fluoro-1H-indole;
8-[3-(1-phenethyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-indole-1-
     sulfonyl]-quinoline;
3-[1-(3,3-dimethylbutyl)-2,5,6,7-tetrahydro-1H-azepin-4-yl]-1-
     (naphth-2-ylsulfonyl)-1H-indole;
1-(2,3-dichlorophenylsulfonyl)-3-(1-methyl-2,3,6,7-tetrahydro-
     1H-azepin-4-yl)-1H-pyrrolo[2,3-]pyridine;
1-[(3-chloro-5-methoxyphenylsulfonyl)]-3-(2,2-dimethyl-
     2,3,6,7-tetrahydro-1H-azepin-4-yl)-5-fluoro-1H-indole;
3-azepan-4-yl-5-fluoro-1-(naphth-2-ylsulfonyl)-1H-indole;
1-Benzenesulfonyl-3-piperidin-3-yl-1H-indole;
1-(4-isopropyl-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;
1-(5-chloro-thiophene-2-sulfonyl)-3-piperidin-3-yl-1H-indole;
1-(3-chloro-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;
1-(3,4-difluoro-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;
1-(4-trifluoromethoxy-benzenesulfonyl)-3-piperidin-3-yl-1H-
     indole;
1-(4-methoxy-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;
1-(4-trifluoromethy-benzenesulfonyl)-3-piperidin-3-yl-1H-
     indole;
1-(3-chloro-4-methyl-benzenesulfonyl)-3-piperidin-3-yl-1H-
     indole;
1-(2-chloro-4-trifluoromethyl-benzenesulfonyl)-3-piperidin-3-
     yl-1H-indole;
1-(2-naphthylenesulfonyl)-3-piperidin-3-yl-1H-indole;
1-(5-chloro-3-methyl-benzo[b]thiophene-2-sulfonyl)-3-
     piperidin-3-yl-1H-indole;
1-(2,6-dichloro-imidazo[2,1-b]thiazole-5-sulfonyl)-3-
     piperidin-3-yl-1H-indole;
2-chloro-3-(3-piperidin-3-yl-indole-1-sulfonyl)-imidazo[1,2-
     a]pyridine;
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Patent

- 2-chloro-3-(3-piperidin-3-yl-indole-1-sulfonyl)benzo[d]imidazo[2,1-b]thiazole;
- 1-(4-isopropyl-benzenesulfonyl)-3-piperidin-3-yl-1Hpyrrolo[2,3-b]pyridine;
- 1-(5-chloro-thiophene-2-sulfonyl)-3-piperidin-3-yl-1Hpyrrolo[2,3-b]pyridine;
- 1-(3-chloro-benzenesulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;
- 1-(3,4-difluoro -benzenesulfonyl)-3-piperidin-3-yl-1Hpyrrolo[2,3-b]pyridine;
- 1-(4-trifluoromethoxy-benzenesulfonyl)-3-piperidin-3-yl-1Hpyrrolo[2,3-b]pyridine;
- 1-(3-chloro-4-methyl-benzenesulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;
- 1-(2-chloro-4-trifluoromethyl-benzenesulfonyl)-3-piperidin-3yl-1H-pyrrolo[2,3-b]pyridine;
- 1-(2-naphthylenesulfonyl)-3- piperidin-3-yl-1H-pyrrolo[2,3b]pyridine;
- 1-(5-chloro-3-methyl-benzo[b]thiophene-2-sulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;
- 2-chloro-3-(3-piperidin-3-yl-pyrrolo[2,3-b]pyridine-1-sulfonyl)-imidazo[1,2-a]pyridine;
- 2-chloro-3-(3-piperidin-3-yl-pyrrolo[2,3-b]pyridine-1-sulfonyl)-benzo[d]imidazo[2,1-b]thiazole; and the pharmaceutically acceptable salts thereof.
- 20. (Currently Amended) A process for the preparation of a compound of formula If

$$R_2$$
 $(CR_3R_4)n$ 
 $R_1$ 
 $SO_2R_5$ 
(If)

wherein

- W is N or CR6;
- X is N or CR,;
- Y is NR<sub>8</sub> or CR<sub>9</sub>R<sub>10</sub>;
- n is [[0 or]] an integer of 1 or 2;
- Z is  $NR_{11}$  or  $CR_{12}R_{13}$  with the proviso that when n is 1 and W is  $CR_6$  then Z must be  $CR_{12}R_{13}$  and with the further provisos that when Y is  $NR_8$  then Z must be  $CR_{12}R_{13}$  and at least one of Y and Z must be  $NR_8$  or  $NR_{11}$ ;
- $R_1$ ,  $R_2$  and  $R_7$  are each independently H, halogen, CN,  $OCO_2R_{14}$ ,  $CO_2R_{15}$ ,  $CONR_{29}R_{30}$ ,  $CONR_{29}R_{30}$ ,  $CNR_{16}NR_{17}R_{18}$ ,  $SO_mR_{19}$ ,  $NR_{20}R_{21}$ ,  $OR_{22}$ ,  $COR_{23}$  or a  $C_1$ - $C_6$ alkyl,  $C_2$ - $C_6$ alkenyl,  $C_2$ - $C_6$ alkynyl,  $C_3$ - $C_6$ cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;
- $R_{_{3}},\ R_{_{4}},\ R_{_{9}},\ R_{_{10}},\ R_{_{12}}$  and  $R_{_{13}}$  are each independently H or an optionally substituted  $C_{_{1}}-C_{_{6}}alkyl$  group;
- $R_s$  is an optionally substituted  $C_1$ - $C_6$ alkyl, aryl or heteroaryl group;
- m is 0 or an integer of 1 or 2;
- $R_6$  is H, halogen, or an optionally substituted  $C_1-C_6$ alkyl,  $C_1-C_6$ alkoxy, aryl or heteroaryl group;
- $R_8$  and  $R_{11}$  are each independently H,  $CNR_{26}NR_{27}R_{28}$  or a  $C_1$ - $C_6$ alkyl,  $C_3$ - $C_6$ cycloalkyl, cycloheteralkyl, aryl or heteroaryl group each optionally substituted;
- $R_{14}$ ,  $R_{15}$ ,  $R_{22}$  and  $R_{23}$  are each independently H or an optionally substituted  $C_1$ - $C_6$ alkyl,  $C_2$ - $C_6$ alkenyl,  $C_3$ - $C_6$ cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group;
- $R_{16}$ ,  $R_{17}$ ,  $R_{18}$ ,  $R_{20}$ ,  $R_{21}$ ,  $R_{26}$ ,  $R_{27}$ ,  $R_{28}$ ,  $R_{29}$  and  $R_{30}$  are each independently H or  $C_1$ - $C_4$ alkyl;
- $R_{19}$  is an optionally substituted  $C_1-C_6$ alkyl, aryl or heteroaryl group; and
- --- represents a single bond or a double bond which process comprises reacting a compound of formula IVa

$$R_2$$
 $(CR_3R_4)$ 
 $R_1$ 
 $(CR_3R_4)$ 

wherein W, X, Y, Z, n,  $R_1$ ,  $R_2$ ,  $R_3$  and  $R_4$  are as defined above with a sulfonyl chloride,  $R_5SO_2Cl$ , wherein  $R_5$  is defined above in the presence of a base.

(IVa)